Filter Shade Selection for Type of Welding

Operation	Electrode Size (mm)	Arc Current (A)	Min Shade	Suggested Shade
Shielded Metal	< 2.5 mm	< 60	7	*
Arc Welding	2.5 - 4mm 4 - 6.4mm > 6.4mm	60 - 160 160 - 250 250 - 550	8 10 11	10 12 14
Gas Metal Welding and Flux Cored Arc Welding		< 60 60 - 160 160 - 250 250 - 500	7 10 10 10	* 11 12 14
Gas Tungsten Arc Welding		< 50 50 - 150	8 8	10 12
Air Carbon Arc Cutting		150 - 500 < 500 500 - 1000	10 10 11	14 12 14
Torch Brazing				3 or 4
Torch Soldering				2
Carbon Arc Welding				14
Gas Welding (plate under 1/8" thick, light)				4 or 5
Gas Welding (plate 1/8" to 1/2" thick, medium)				5 or 6
Gas Welding (plate over 1/2" thick, heavy)				6 or 8
Oxygen Cutting (plate under 1" thick, light)				3 or 4
Oxygen Cutting (plate 1" to 6" thick, medium)				4 or 5
Oxygen Cutting (plate over 6" thick, heavy)				5 or 6

**As a rule of thumb, start with a shade that is too dark to see the weld zone. Then go to a lighter shade which gives sufficient view of the weld zone without going below the minimum. In Oxyfuel Gas Welding or Cutting where the torch produces a high yellow light, it is desirable to use a filter lens that absorbs the yellow or sodium line in the visible light of the operation.

**This applies to where the actual arc is clearly seen. Experience has shown that lighter filters may be used when the arc is hidden by the work piece.

Note: Workers with prescription lenses are not exempt from wearing proper eye protection.